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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,545	01/31/2001	Leslie M. Brooks	2479.1078-000	3228
21005	7590	05/06/2004	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			PHILLIPS, HASSAN A	
			ART UNIT	PAPER NUMBER
			2151	

DATE MAILED: 05/06/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/774,545

Applicant(s)

BROOKS ET AL.

Examiner

Hassan Phillips

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The Information Disclosure Statement (IDS) filed on May 18, 2001, and the supplemental IDS filed on January 4, 2002, have both been received and considered by the examiner.

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 1015, and 1035 of Fig. 10, and 1240 of Fig. 12. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

1. The disclosure is objected to because of the following informalities: On page 9, line 20, there is an incorrect reference numeral used to reference "PC". The examiner feels the correct reference numeral for "PC" should be 205.

On page 12, line 24, there is an incorrect reference numeral used to reference "first link". The examiner feels the correct reference numeral for the "first link" should be 220a.

On page 19, line 7, there is an incorrect reference numeral used to reference "the process". The examiner feels the correct reference numeral for "the process" should be 1000.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 1 recites the limitation "the state of data link compression" in line 8. There is insufficient antecedent basis for this limitation in the claim. In order to complete the examination of the application for patent the examiner has interpreted the limitation to read "a state of data link compression".

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 6-14, 18-26, 28, are rejected under 35 U.S.C. 102(b) as being anticipated by Gillon et al. (hereinafter Gillon), U.S. patent 5,838,927.

3. In considering claims 1, 13, 25, and 28, Gillon discloses a method for compressing a data stream comprising:

- a) Filtering protocol-specific header and control information of a protocol data unit (PDU) to determine compressibility of the contents of the PDU, (col. 5, lines 48-50);
- b) Based on the result of filtering, selecting a state of data link compression for the PDU to optimize compression efficiency, (col. 5, lines 52-56).

4. In considering claims 2, 14, and 26, the method of Gillon teaches compressing the contents of the PDU as a function of the state of data link compression. See col. 5, lines 52-56.

5. In considering claims 6 and 18, it is inherent in the method taught by Gillon that a table is accessed having entries with specific media types deemed compression limited. See col. 5, lines 39-50.

6. In considering claims 7 and 19, it is also inherent in the method taught by Gillon that filtering includes associating individual PDU's to specific media types. See col. 5, lines 48-56.

7. In considering claims 8 and 20, the method of Gillon teaches determining if a given PDU is associated with a previously filtered PDU, and, if so, assigning the same state of data link compression for the given PDU as for the previously filtered PDU. See col. 5, lines 48-57.

8. In considering claims 9 and 21, it is inherent in the method taught by Gillon that a table is accessed including information of previously filtered PDU's, when determining if a given PDU is associated with a previously filtered PDU. See col. 5, lines 48-56.

9. In considering claims 10 and 22, it is also inherent in the method taught by Gillon that data link compression is disabled if the compressibility of the contents of the PDU is determined to be low. See col. 5, lines 48-56.

10. In considering claims 11 and 23, the method of Gillon teaches enabling data link compression if the compressibility of the contents of the PDU is determined to be high. See col. 5, lines 48-56.

11. In considering claims 12 and 24, the method of Gillon further teaches utilizing tables initialized with patterns expected to be contained in the content of the PDU, and used by the data link compression. See col. 5, lines 33-38.

12. Claims 29-30, are rejected under 35 U.S.C. 102(b) as being anticipated by Christensen et al. (hereinafter Christensen), U.S. patent 5,555,377.

13. In considering claim 29, Christensen discloses a method for optimizing compression efficiency comprising:

- a) Without changes to a subordinate protocol layer, or changes to higher protocol layers that the subordinate protocol layer carries, selectively controlling the state of a compression algorithm for compressing data transported by PDU's across a connection in a data communication network to optimize the compression efficiency, (col. 2, lines 1-18).

14. In considering claim 30, the method of Christensen discloses selectively controlling the state of the compression algorithm by enabling or disabling the compression algorithm. See col. 2, lines 1-12.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2151

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3-5, 15-17, 27, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillon in view of Christensen.

3. In considering claims 3 and 15, although the disclosed method of Gillon shows substantial features of the claimed invention, it fails to expressly disclose:

a) Indicating whether the contents of the PDU have been compressed or not.

Nevertheless, in a similar field of endeavor Christensen teaches a method for adaptive compression comprising:

a) Applying an indication in a compressed PDU to indicate whether the contents of the PDU have been compressed, (col. 5, lines 54-61).

Given the teachings of Christensen, it would have been obvious to one of ordinary skill in the art to modify the teachings of Gillon to also teach a means of indicating whether contents of a compressed PDU have been compressed by applying an indication in, or with, the compressed PDU. This would have provided an efficient means for the device assigned to decompress the PDU to determine whether decompression is necessary or not, Christensen, col. 5, lines 49-53.

4. In considering claims 4, 16, and 27, Gillon further discloses decompressing the compressed contents of the PDU, col. 5, lines 13-17.

5. In considering claims 5 and 17, the combined methods taught by Gillon and Christensen with respect to claims 3, 4, 15, and 16, provide a means for decompressing the compressed contents of a PDU in a pre-negotiated manner based on the indication of whether the contents of the PDU have been compressed.

6. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen in view of Gillon.

7. In considering claim 31, the method of Christensen further discloses:

- a) Selectively controlling the state of the compression algorithm by analyzing network activity, (col. 4, lines 1-67).

Although the disclosed method of Christensen shows substantial features of the claimed invention, it fails to expressly disclose:

- a) Analyzing the header of a PDU to control the state of the compression algorithm.

Nevertheless, the method of Gillon teaches:

- a) Controlling the state of compression by analyzing protocol-specific header and control information of the PDU's of the higher protocol layers, (col. 5, lines 39-50).

Given the teachings of Gillon, it would have been obvious to one of ordinary skill in the art to modify the teachings of Christensen to selectively control the state of the

compression algorithm by analyzing the header and control information of the PDU's traversing the network. This would have provided a more efficient means for determining whether or not to compress data traversing the network, and would have also provided an efficient utilization of the network by only compressing data deemed to be compressible, Christensen, col. 5, lines 48-50.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gillon et al., U.S. Patent No. 5,838,927, discloses a method for compressing data.

Christensen et al., U.S. Patent No. 5,555,377 discloses a method for selectively compressing data transferred in a network.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is (703) 305-8760. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HP/
4/22/04



FRANTZ B. JEAN
PRIMARY EXAMINER